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# Iowa Consumer Trends and Participation in Agritourism Activities

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## **Abstract**

As the agritourism industry grows and develops in Iowa, it is important to identify the knowledge and participation levels of prospective agritourism consumers. This article focuses on current consumer trends and participation levels in Iowa agritourism activities. The results revealed a majority of Iowans believe they have at least some understanding of agriculture and food production and have participated in agritourism activities, but were relatively unfamiliar with agricultural-related tourism terms. The results can be used by Extension educators, state agricultural and economic development organizations, and the agritourism owner/operator to create a consumer profile and understand their prospective audiences.

## **Keywords**

agritourism, rural development, economic development, program planning, consumer participation

## **Disciplines**

Agricultural and Resource Economics | Agricultural Economics | Tourism and Travel

## **Comments**

This article is from *Journal of Extension* 50 (2012): 1. Posted with permission.



**April 2012**  
**Volume 50 Number 2**  
**Article Number 2FEA8**

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# **Iowa Consumer Trends and Participation in Agritourism Activities**

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**Abstract:** As the agritourism industry grows and develops in Iowa, it is important to identify the knowledge and participation levels of prospective agritourism consumers. This article focuses on current consumer trends and participation levels in Iowa agritourism activities. The results revealed a majority of Iowans believe they have at least some understanding of agriculture and food production and have participated in agritourism activities, but were relatively unfamiliar with agricultural-related tourism terms. The results can be used by Extension educators, state agricultural and economic development organizations, and the agritourism owner/operator to create a consumer profile and understand their prospective audiences.

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## **Introduction**

The collaborative nature of Extension education provides an opportunity to join with Iowa agritourism stakeholders to develop the potential for agritourism growth and development. Agritourism addresses a focus of Iowa State University Extension (2007) for increasing rural vitality and stimulating new economic opportunities through the diversification of farm operations and

increased revenue on-site and near the operations (Geisler, 2008; Jensen, Lindborg, English, & Menard., 2006). As a means to support the growth and development of the agritourism industry, Extension education can aid in the necessary programming for and education of community leaders and business operators (Tweeten, Leistritz, & Hodur, 2008; Honadle, 1990).

The challenge for Extension education is obtaining the necessary information to assist the growth and development of the Iowa agritourism industry. Because the agritourism industry in Iowa is young and still growing and developing, there is a lack of available information for Extension education, especially information regarding prospective visitors. Previous studies in California have emphasized the importance of understanding the target market in order to plan and develop a promotional strategy (Jolly & Reynolds, 2005; Lobo et al., 1999). The study reported here sought to identify prospective visitors and understand their potential levels of participation and trends.

## **Review of Literature**

According to the 2007 U.S. Census of Agriculture, the number of farms that sold agricultural products directly to individuals for human consumption increased by 17% nationally, while the number of farms in Iowa showed an increase of 22%, rising from 2,455 farms in 2002 to 2,987 farms in 2007. The increase in local food sales has been driven by "...an interest in knowing where food comes from and how it is grown, and a desire to support local farmers" (Pirog, 2009, p. 136). Such direct marketing provides a link between consumers seeking high-quality produce and producers seeking an opportunity to compete by allowing them to bypass traditional distribution networks and earn a greater share of profits (Kuches, Toensmeyer, German, & Bacon, 1999).

As farm families begin to directly market their products and diversify their operations to include activities such as agritourism, there is a desire to educate the public about agriculture (McGehee & Kim, 2004; Nickerson, Black, & McCool, 2001; Putzel, 1984). Through agritourism, owner/operators are able to educate the general public about agriculture's contributions to the local economy and quality of life (Lobo et al., 1999).

The Extension system nationwide has been working with local communities for a number of years. The goal of community development programs within the Extension system is to improve the economic, social, and environmental well-being of the community (SeEVERS, Graham, & Conklin, 2007). Agritourism is a means to accomplish this goal. Economically, it aids community development by bringing revenue to rural areas both on-site and near the operation (Geisler, 2008; Jensen et al., 2006) and educating people about their food source and rural neighbors. Researchers (Jensen et al., 2006; Lobo et al., 1999) have reported that agritourism has had a positive economic impact for both the farm operation and local community.

In addition to the economic benefits, there are also social benefits, which aid in the long-term sustainability (Flora & Flora, 2008; Burkhart-Kriesel & Francis, 2007). Studies in North Dakota by Schroeder (2004) and in Montana by Nickerson, Black, and McCool (2001) reported that the formation of personal relationships was a motivator behind the agritourism owner/operators motivation to start and stay in business. Interactions with guests and personal relationships were viewed as a life enriching experience (Schroeder, 2004). In addition, agritourism owner/operators

create a linkage between the products/resources and the experience they are providing the consumer, which in turn contributes to a positive economic and social environment in the communities where both parties live, work, and play (Schroeder, 2004).

## **Purpose and Objectives**

The overall purpose of the study reported here was to describe Iowa's current level of agritourism participation and consumer trends towards agritourism activities based on selected demographics. The objectives are to 1) assess consumer understanding of agriculture and how food is produced; 2) assess consumer familiarity with agritourism and related forms of tourism; 3) explore the type of agritourism activities consumers are participating; 4) determine how consumers become aware of agritourism activities; and 5) identify travel and seasonal preferences of consumers.

## **Methods and Procedures**

The study used a directly administered survey to obtain a higher response rate and fewer incomplete answers (Ary, Jacobs, & Razavieh, 2002). The survey instrument was modeled after instruments developed by Komar (2008) and Jensen, et al. (2006) and a review of literature. Dillman's (2007) conventions for survey development and data collection were used.

The researchers used a series of steps proposed by Dillman (2007) to ensure the content and validity of the instrument. These steps included review of the instrument by knowledgeable colleagues, informal discussions, a small pilot study of 30 random individuals at a grocery store, and a final check of the instrument prior to its administration. These procedures required no major changes in the content or design of the instrument.

A convenience sample was obtained by handing out the survey over the course of 6 days at the 2008 Iowa State Fair. The targeted locations were primarily areas with high traffic flow as well as places where individuals would be standing in line. In total, 385 individuals participated in the survey. Some individuals approached over the course of the 6 days refused to complete the survey, but the researcher did not record the number of refusals.

The pilot test and survey data were compared using two independent samples t-test (Ary et al., 2002). There were no statistically significant differences in the means of the two groups, so the data from both groups were combined, increasing the total number of respondents in the study to 415. The demographic data obtained from the 415 questionnaires were also compared with the 2000 Iowa Census data. This information was well distributed and demonstrated similar trends to those in the 2000 Iowa Census data. The results of the questionnaire data were analyzed using descriptive statistics. Chi-squared was calculated and reported to compare the differences among groups of respondents.

## **Results**

A total of 415 people responded to the survey. However, the useable responses reported in the

findings may vary by question because of incomplete or illegible responses. Information was gathered on respondents' gender, ethnicity, age, population category, education level, and household income. The demographic information obtained from respondents is reported in Table 1.

**Table 1.**  
Frequencies for Selected Demographic Variables

<b>Variables</b>	<b><i>f</i></b>	<b><i>%</i></b>
Gender		
Male	189	45.50
Female	226	54.50
Ethnicity		
Caucasian or White	385	93.69
African American or Black	11	2.67
Asian or Pacific Islander	10	2.43
Latino or Hispanic	4	0.97
Age		
20-24	64	16.60
25-34	64	16.60
35-44	74	19.20
45-54	102	26.40
55-64	45	11.70
65+	37	9.50
Population		
Rural (less than 10,000)	206	50.20
Non-urban (10,000-49,999)	72	17.60
Urban (over 50,000)	132	32.20
Education level		
High school grad or less	113	27.50
Associate or some college	128	31.10
Bachelors	115	28.00

Graduate	55	13.40
Household income level		
Less than \$25,000	54	14.40
\$25,000-\$49,999	75	19.90
\$50,000-\$74,999	97	25.80
\$75,000-\$99,999	51	13.60
\$100,000-\$149,999	59	15.70
\$150,000+	40	10.60

The first objective was to assess consumer understanding of agriculture and food production. Respondents were asked to self-rank their understanding. Of the 410 respondents, the majority reported some understanding of agriculture (72.68%) and food production (67.80%). In total, few respondents reported having no understanding of agriculture (6.59%) or food production (4.15%).

When the various demographic categories were compared statistically, there was a significant relationship between a) the respondents' gender and b) population category and their understanding of agriculture and food production. Rural respondents were more likely to report an extensive understanding of agriculture (32.52%) and food production (39.81%) than the non-urban respondents (6.94% and 20.83%, respectively) and urban respondents (9.85% and 13.64%, respectively). The male respondents were more likely to report an extensive understanding of agriculture (29.63%) and food production (33.33%) than the female respondents (12.83% and 23.45%, respectively).

The second objective was to assess the familiarity of respondents with agriculture-related tourism terms. Less than half of the respondents were familiar with the agriculture-related tourism terms presented in the survey. Overall, the most familiar term was "agritourism" with 45.99% of respondents reporting they had heard the term prior to completing the survey, followed by "ecotourism" (43.07%), "green tourism" (36.50%), and "nature-based tourism" (35.52%).

There was a significant relationship between the respondents' education level and their familiarity with agriculture-related tourism terms (Table 2). Respondents with a bachelor degree or higher were more likely to have heard of the terms "agritourism" and "ecotourism." Over half of the respondents with a bachelor or graduate degree reported having heard of the terms "agritourism" (54.78% and 52.73%, respectively) and "ecotourism" (55.65% and 54.55%, respectively). Respondents with a graduate degree were more likely to have heard of the terms "green tourism" and "nature-based tourism." Over half of respondents with graduate degrees reported having heard of the terms "green tourism" (58.18%) and "nature-based tourism" (50.91%).

**Table 2.**  
Familiarity of Agriculture-Related Tourism Terms by Education Level

	<b>High school or less</b>		<b>Associate or some college</b>		<b>Bachelor</b>		<b>Graduate</b>		<b>Total</b>	
	<b>(n= 113)</b>		<b>(n= 128)</b>		<b>(n= 115)</b>		<b>(n= 55)</b>		<b>(n= 411)</b>	
<b>Term</b>	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
<b>Agritourism<sup>1</sup></b>										
Have not heard of	76	67.26	68	53.13	52	45.22	26	47.27	222	54.01
Have heard of	37	32.74	60	46.88	63	54.78	29	52.73	189	45.99
<b>Ecotourism<sup>2</sup></b>										
Have not heard of	78	69.03	80	62.50	51	44.35	25	45.45	234	56.93
Have heard of	35	30.97	48	37.50	64	55.65	30	54.55	177	43.07
<b>Green tourism<sup>3</sup></b>										
Have not heard of	77	68.14	89	69.53	72	62.61	23	41.82	261	63.50
Have heard of	36	31.86	39	30.47	43	37.39	32	58.18	150	36.50
<b>Nature-based tourism<sup>4</sup></b>										
Have not heard of	79	69.91	89	69.53	70	60.87	27	49.09	265	64.48
Have heard of	34	30.09	39	30.47	45	39.13	28	50.91	146	35.52
<i>Note:</i> <sup>1</sup> $\chi^2 = 18.27, df = 3, p = .006$ ; <sup>2</sup> $\chi^2 = 18.742, df = 3, p < .001$ ; <sup>3</sup> $\chi^2 = 14.255, df = 3, p = .003$ ; <sup>4</sup> $\chi^2 = 9.223, df = 3, p = .026$										

The third objective of the study was to explore the type of agritourism activities in which consumers have participated. While fewer than half of the respondents were familiar with "agritourism" or the other agriculture-related tourism terms, only 25 of the 410 respondents (6.10%) had not participated in any of the 20 agritourism activities listed in the survey. Table 3 represents the types of agritourism



activities that the respondents reported participating in over the last 5 years.

Overall, the most common agritourism activity was farmers markets (80.24%). The least common agritourism activities included hunting for a fee on private land (13.66%), on-farm concerts (13.90%), and on-farm weddings (14.88%). Of the total number of respondents who had participated in agritourism activities over the last 5 years, 214 out of the 410 total respondents (52.20%) reported they returned to visit the same farm or participate in the same agritourism activity during the year.

**Table 3.**  
Participation in Agritourism-Related Activities (n = 410)

	<b>Have not participated</b>		<b>Have participated</b>	
<b>Activity</b>	<i>fo</i>	%	<i>fo</i>	%
Farmers market	81	19.76	329	80.24
Pick-your-own fruit/vegetables	138	33.66	272	66.34
Hay ride	193	47.07	217	52.93
Wine tasting at a vineyard	218	53.17	192	46.83
Cut your own tree	235	57.32	175	42.68
4-wheeling/ATV riding (private land)	241	58.78	169	41.22
Corn maze	272	66.34	138	33.66
Horseback riding (on private land)	281	68.54	129	31.46
Farm tour	282	68.78	128	31.22
Farm produce tasting	288	70.24	122	29.76
Petting zoo (on-farm)	302	73.66	108	26.34
Fishing for a fee (on private land)	304	74.15	106	25.85
Bed & breakfast	307	74.88	103	25.12
Sleigh ride	318	77.56	92	22.44
On-farm camping	328	80.00	82	20.00
School field trip to a farm	329	80.24	81	19.76
Nature retreat	333	81.22	77	18.78
Wedding (on-farm)	349	85.12	61	14.88
On-farm concerts	353	86.10	57	13.90

Hunting for a fee (on private land)	354	86.34	56	13.66
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The fourth objective was to determine how consumers developed awareness of agritourism activities. Respondents who had participated in agritourism activities over the past 5 years were asked how they had learned about the agritourism activity. Thirteen options were provided, and respondents were able to select all that applied as well as write in any additional possibilities. The most popular form of communication was word-of-mouth, with 67.18% of respondents stating that they had learned about the agritourism activity through word-of-mouth. The least common forms of communication included the Chamber of Commerce (3.85%) and a farm/agritourism Web site (2.56%). No common themes were found among the write-in responses.

There was a significant relationship between the respondents' education level and six of the 13 forms of communication (Table 4). Respondents with graduate degrees were more likely to use word-of-mouth (84.31%), newspapers (45.10%), brochures (25.49%), and guide books (19.61%) and less likely to use promotional flyers (3.92%) than respondents at the other education levels. Respondents with bachelor's degrees were more likely to use promotional flyers (15.32%) and less likely to use television (9.91%) and guide books (3.6%) than respondents at the other education levels. Respondents with associate degrees or some college were less likely to use newspapers (23.33%) than respondents at the other education levels. Respondents with high school degrees or less were more likely to use television (29.63%) and less likely to use word-of-mouth (50.93%) and brochures (7.41%) than respondents at the other education levels.

**Table 4.**  
Form of Communication by Education Level

	<b>High school or less</b>		<b>Associate or some college</b>		<b>Bachelor</b>		<b>Graduate</b>		<b>Total</b>	
	<b>(n= 113)</b>		<b>(n= 128)</b>		<b>(n= 115)</b>		<b>(n= 55)</b>		<b>(n= 411)</b>	
<b>Term</b>	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
<b>Word of mouth<sup>1</sup></b>										
Yes	55	50.93	86	71.67	78	70.27	43	84.31	262	67.18
No	53	49.07	34	28.33	33	29.73	8	15.69	128	32.82
<b>Newspaper<sup>2</sup></b>										
Yes	35	32.41	28	23.33	34	30.63	23	45.10	120	30.77
No	73	67.59	92	76.67	77	69.37	28	54.90	270	69.23
<b>Television<sup>3</sup></b>										
Yes	32	29.63	21	17.50	11	9.91	6	11.76	70	17.95

No	76	70.37	99	82.50	100	90.10	45	88.24	320	82.05
<b>Promotional flyer<sup>4</sup></b>										
Yes	10	9.26	7	5.83	17	15.32	2	3.92	36	9.23
No	98	90.74	113	94.17	94	84.68	49	96.08	354	90.77
<b>Guide book<sup>5</sup></b>										
Yes	6	5.56	13	10.83	4	3.60	10	19.61	33	8.46
No	102	94.44	107	89.17	107	96.40	41	80.39	357	91.54
<b>Brochure<sup>6</sup></b>										
Yes	8	7.41	15	12.50	25	22.52	13	25.49	31	7.95
No	100	92.59	105	87.50	86	77.48	38	74.51	329	84.36
<i>Note:</i> <sup>1</sup> $\chi^2 = 21.308, df = 3, p < .001$ ; <sup>2</sup> $\chi^2 = 8.167, df = 3, p = .043$ ; <sup>3</sup> $\chi^2 = 16.217, df = 3, p = .001$ ; <sup>4</sup> $\chi^2 = 8.274, df = 3, p = .041$ ; <sup>5</sup> $\chi^2 = 13.612, df = 3, p = .003$ ; <sup>6</sup> $\chi^2 = 14.179, df = 3, p = .003$										

The fifth objective of the study was to identify travel preferences of consumers. Respondents were asked how many miles they would be willing to travel to visit a farm or participate in an agritourism activity. Seven options were provided, ranging from "I would not visit" to "Greater than 90 miles." Only three of the 410 respondents (0.73%), all urban, indicated they would not visit. Nearly one-third of the total respondents (30.73%) indicated they would travel 31-50 miles to visit a farm or participate in an agritourism activity, and 29.02% of respondents indicated they would travel 11-30 miles.

Finally, respondents were also asked to indicate with whom they would visit a farm or participate in an agritourism activity. Eight options were provided, and respondents were able to select all that applied. The most common responses included spouse or partner (72.53%), friends (66.27%), immediate family (65.54%), and extended family (40.48%). The least common responses included tour groups (8.92%), school groups (14.94%), church groups (14.70%), and alone (17.11%).

There was a significant relationship between the respondents' age and whether or not they would participate with their spouse or partner, friends, immediate family, and extended family. Respondents within the age group of 55-64 were most likely to participate with a spouse or partner (86.67%), and the age group of 20-24 was most likely to participate with friends (84.38%). Respondents within the age group of 25-34 were most likely to participate with immediate family (84.38%), while the age groups of 20-24 and 25-34 were most likely to participate with extended family (48.44%).

Last, respondents were asked to rank the seasons in order of the likelihood they would visit a farm or participate in an agritourism activity. Of the 351 respondents, 158 respondents (45.01%) reported

they were most likely to visit or participate in the fall, and 299 respondents (85.19%) reported they were least likely visit or participate in the winter.

## Conclusion and Implications

The results of the study reported here have implications for the Iowa agritourism industry because it has only recently begun to organize and develop into a formal industry. Based on the results of the study, it could be concluded that 1) a majority of Iowans indicate at least some understanding of agriculture and food production; 2) Iowans are relatively unfamiliar with agritourism and other agriculture-related tourism terms; 3) a large percentage of Iowans have participated in agritourism-related activities; 4) word-of-mouth remains an effective form of advertisement; and 5) Iowa consumers are willing to travel and prefer to participate in agritourism activities in the fall with close family and friends.

Terminology associated with agritourism may be confusing to or may not resonate with consumers. As Wicks and Merrett (2003) and Dane (2001) suggest, agritourism is not a new idea; individuals have always visited farms and rural area. The study demonstrated that a majority of respondents had participated in agritourism-related activities previously, whether they were familiar with agricultural-related tourism terms or not. The newness and unfamiliarity of terms presents an opportunity for education and Extension outreach to brand the experience. The more familiar that participants become with agritourism activities and the opportunities that exist, the more likely they will be to keep them at the forefront of their mind as they plan activities with their friends and close family members.

The results from the study provide valuable insight for Extension educators, agritourism owner/operators, and state agricultural organizations interested in branding and developing the agritourism industry. As the results indicate, Iowans are interested in agritourism activities and are willing to travel to participate in them. This interest in agritourism provides an opportunity for rural community development by bringing revenue to rural areas both on-site and near the operation (Jensen et al., 2006; Geisler, 2008). Agritourism also benefits the owner/operator because it provides alternative use of farmland and improves business sustainability (Jensen et al., 2006; Geisler, 2008). Outside of the economic benefits, agritourism also has the potential for informal agricultural education between the owner/operator and the general population that generally has little to no direct contact with agriculture (Jolly & Reynolds, 2005).

As owner/operators, Extension educators, and state agricultural organizations begin developing agritourism opportunities and branding the experience, the results of the study indicate the importance of considering the types of agritourism activities. There are opportunities for each type of agritourism-related activity as related to rural community development, alternative use of farmland, and informal agricultural education. When determining which type to pursue, owner/operators may want to consider what they are best set up for and how they are able to promote the opportunity to the surrounding community. Extension educators may also want to consider how they are able to help in providing resources and support to the owner/operators. Using the information from the survey used in the study to develop Extension programs as well as to assist with advertising and marketing of agritourism will yield higher levels of interest and participation in agritourism activities as

observed by Che, Veeck, and Veeck (2007), Jensen et al. (2006), and Hilchey and Kuehn (1999).

Finally, the study indicates that there is an underlying theme surrounding consumer preferences that suggests social ties associated with participating in agritourism. The literature also emphasizes the social benefits, which aid in the long-term sustainability (Burkhart-Kriesel & Francis, 2007; Flora & Flora, 2008). The findings of the study reported here are similar to those of previous studies in that individuals are most likely to participate in agritourism activities with family and friends (Hilchey & Kuehn; Che et al., 2007) and are likely to return to participate in the same agritourism activity (Che et al., 2007; Jensen et al., 2006; Jolly & Reynolds, 2005). The results of the study also show that age plays a factor in who a visitor is most likely to participate in the agritourism activity with. By taking into consideration the age of their target demographic, owner/operators can determine what types of activities they want to include and market to the public.

Based on its social nature and potential for repeat business, word-of-mouth was found to serve as the primary means of communication about agritourism activities, which was consistent with the results of previous studies (Che et al., 2007; Jensen et al., 2006; Hilchey & Kuehn, 1999). Once again this provides an opportunity to owner/operators to brand the experience and create a unique opportunity for the visitor to share with the family and friends by providing positive experiences for agritourists.

## Recommendations

As previous studies have supported, it is important to understand the prospective visitor in order to successfully plan and develop a promotional strategy (Jolly & Reynolds, 2005; Lobo et al., 1999). Extension educators and state agricultural organizations should consider these findings as they work with agritourism owner/operators in developing and promoting the agritourism activities. Because one role of Extension education is to provide existing and new university-based knowledge to local communities (Bull, Cote, Warner, & McKinnie, 2004), it is recommended that Extension educators use these findings to develop agritourism program planning and promote agritourism activities.

To discover even more detailed information about prospective agritourism visitors, future studies focusing on specific areas or counties within Iowa should be conducted. The study reported here provides the initial framework for the conduction of such studies in individual counties throughout the state. The study also provides the framework for other states interested in the studying the growth and development of agritourism in their state.

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